

Please delete the paragraph spanning lines 21 to 22 on page 9 of the application and replace it with the following paragraph:

FIG. 8 shows a surface on which light-generating devices are positioned that is curved in three dimensions.

Please delete the paragraph spanning from line 19 on page 18 to line 4 on page 20 of the application and replace it with the following paragraph:

Although Figures 1 and 2 illustrate embodiments having 3 outputs and 6 outputs, respectively, it is contemplated that the device may have any number of outputs or emitters, from one to a high multiple of outputs. Each output consisting of an individual fiber or fiber bundle that ultimately is connected to a light source. The embodiments of a device for the simultaneous and uniform illumination of at least eight central teeth in both the upper and lower arches were described in U.S. Application Serial No. 09/233,793, which is herein incorporated by reference. A preferred embodiment of this device has three linear optical outputs precisely positioned on three front (patient facing) surfaces. A more preferred embodiment of this device has two three bar devices stacked on the other resulting in six optical outputs on the front patient facing surfaces. Other embodiments of this invention include any number of outputs or emitters, from one to a high multiple of outputs. Each output can comprise an individual fiber or fiber bundle that ultimately is connected to a light source. Embodiments having 3 or 6 outputs are presently preferred for the device because they achieve fairly uniform illumination of the eight or more central teeth without excessive manufacturing problems or costs. More than six outputs, of course are feasible and may in fact be beneficial in terms of uniformity of illumination.

Please delete the paragraph spanning from page 30 line 17 to page 31 line 5 of the application and replace it with the following paragraph:

Returning to the question of the necessary number of rows of light-generating devices

on surface 15, with today's technology it is unlikely that a single row of devices would suffice (from the standpoint of the light intensity that can be generated from an LED) and, because of that, the FIG. 6 mouthpiece is shown with a plurality of light-generating devices arranged in columns. FIG. 13 shows an arrangement where a column of light-generating devices has only two devices: 56 and 57. With a reasonably simple lens design the row of light-generating devices that contains device 56 can handle the upper teeth of a patient (e.g., tooth 71 attached to upper gum 72), and the row of light-generating devices that contains device 57 can handle the lower teeth of a patient (e.g., tooth 73 attached to lower gum 74). If one row of devices (per tooth) is not sufficient because of light power output limitations of the devices used, or because a single device cannot provide the desired uniformity of light intensity on the teeth, a plurality of light-generating devices that is greater than two devices per column might be used, and appropriately focused. One might note that the light profile of the light-generating devices of FIG. 12 is broader and more flattened (i.e., more equal intensity) in the neighborhood of an axis that is perpendicular to surface 15 than the light profile of the light-generating devices of FIG. 13. This intends to demonstrate the flexibility that a design of the lenses that are placed in front of the light source (whether integral to the light-generating device, and/or positioned in front of the light-generating devices) can impart.

Please delete the paragraph spanning from line 5 to line 15 on page 32 of the application and replace it with the following paragraph:

FIG. 18 shows a portion of the back view of element 10, with a column of printed-circuit type feed-through holes 24 for the anodes of the LEDs in a column, and an adjacent column of printed-circuit type feed-through holes 25 for the cathode of the LEDs in a column. Holes 24 are connected to bus 26, and holes 25 are connected to bus 27. Buses 26 and 27 are connected to electrical terminals (not shown) through which power is supplied to buses 26 and 27. When the LEDs are inserted into holes 24 and 25 and soldered to the feed-through holes, the construction is complete. It may be noted that LEDs are current devices, in the sense that the light output is a function of the LED current. To impart accurate control over the currents of the individual LEDs, a series current circuit (as simple as a resistor) is advantageously included with each LED, allowing the energy applied to buses 26 and 27 to be